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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,437	03/19/2004	Ronald G. Gabbard	12188	7274
28484	7590	03/17/2006	EXAMINER	
BASF AKTIENGESELLSCHAFT CARL-BOSCH STRASSE 38, 67056 LUDWIGSHAFEN LUDWIGSHAFEN, 69056 GERMANY			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/804,437

Applicant(s)

GABBARD ET AL.

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.  
4a) Of the above claim(s) 28-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5-7, 12-13, 16-18, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hahn et al, U.S. Patent No. 5,985,943. Hahn discloses a method of applying a polymeric wax to an expanded polystyrene bead comprising the steps of providing the bead, expanding the bead and applying the wax to the bead. See col. 1, lines 56-62 and col. 2, lines 15-33. Note that Hahn teaches that the wax can be applied to prefoamed EPS beads in line 31 of col. 2, and that the wax can be in form of an aqueous emulsion and can be applied by spraying or mixing the beads and emulsion. Hahn further teaches that the polystyrene expanded beads can be placed into molds and molded to form molded articles.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 12- 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn, U.S. Patent No. 5,985,943 in view of GB 1,0112,277.

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Hahn discloses a method of applying a polymeric wax to an expanded polystyrene bead as set forth above. Hahn differs from the claimed invention because Hahn does not disclose applying a polyethylene wax as the polymeric wax. GB '277 teaches that polyethylene wax is suitable for use as a coating agent for polystyrene beads and that polyethylene wax is equivalent to paraffin wax, which is the preferred wax of Hahn. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed polyethylene wax instead of paraffin wax, motivated by the teaching of GB '277 that polyethylene wax was recognized as equivalent to paraffin wax. With regard to coating the formed polymeric foam material with the wax composition, since Hahn teaches that the wax can be applied to the foam in order to render the foam hydrophobic and teaches that the wax does not prevent or impair bonding, it would have been obvious to have applied additional coatings of the wax to the formed foam body, motivated by the expectation that this would further enhance the hydrophobicity of the foam article, which is taught by Hahn as being a desirable property. See col. 1, lines 7-25.

5. Claims 8-11,23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn in view of GB '277 as applied to claims above, and further in view of Gabbard et al, U.S. Patent No. 6,646,018. Hahn discloses a method of making coated expanded polystyrene beads as set forth above. Hahn differs from the claimed invention because it does not disclose placing the beads in a mesh bag after forming and does not disclose the particulars of the blowing agent employed. Gabbard et al teaches at col. 3, lines 2-15 that expanded

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polystyrene beads can be placed in mesh bags after initial expansion in order to age and allow residual blowing agent to leave the beads and for air to equilibrate across the bead. Gabbard also teaches that generally the beads are heated to a temperature above the boiling point of the blowing agent in order to effect the foaming of the beads. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the particular additional method steps of placing the beads in mesh bags and aging them as taught by Gabbard, motivated by the teaching of Gabbard that this process allows the excess blowing agent to leave the beads and air to equilibrate in the beads and it further would have been obvious to have employed and heated the blowing agent to temperatures above the boiling point motivated by the teaching of Gabbard that this was conventionally done in order to form the expanded beads.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

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A handwritten signature in black ink, appearing to read "Elizabeth M. Cole".

Elizabeth M. Cole  
Primary Examiner  
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e.m.c